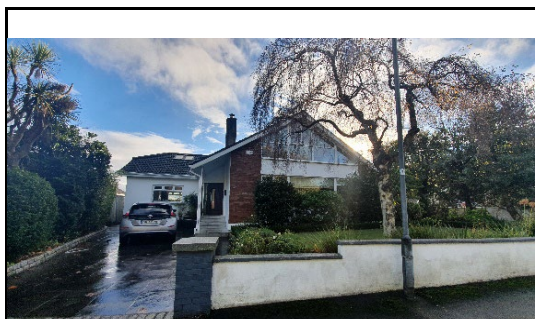


ENERGY AUDIT REPORT

House No.5 - Detached House - 1967 - Block (Unknown) Construction - 280.15m² (3015ft²)



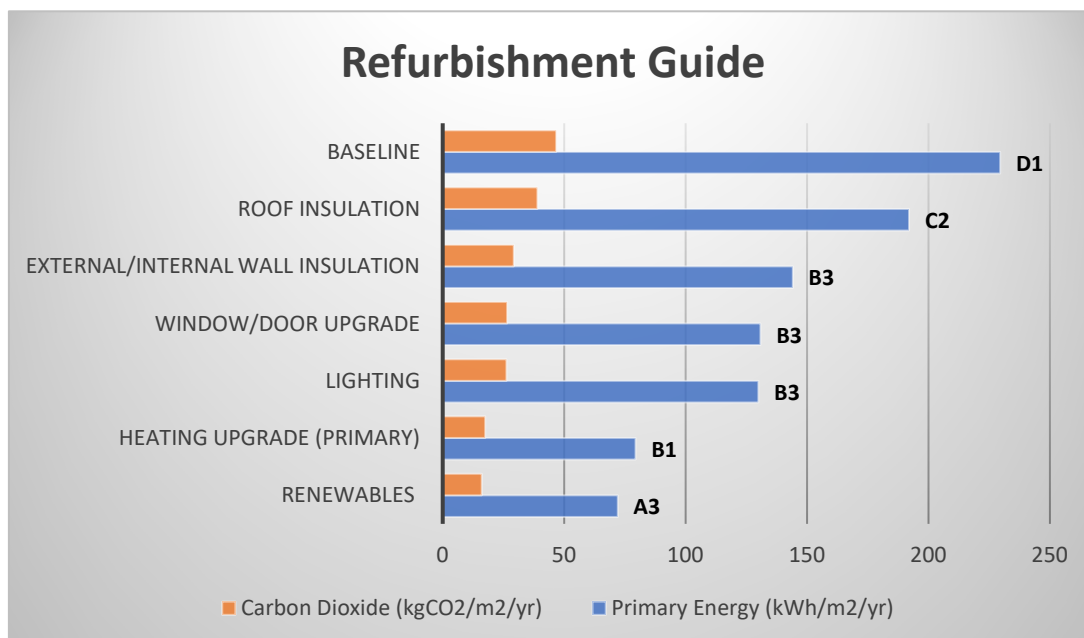
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	50mm	1.1 -2.1
Roof	Pitched Roof insulated at ceiling	50mm-100mm	0.4- 2.3
Floor	Suspended Floor	Unknown	0.56
Windows	Double Glazed	N/A	2.8
Doors	Solid Door	N/A	3.7

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Gas boiler, primary pipework uninsulated	Mains Gas	90%
Secondary Heating System	Closed Stove	Multi fuel	60%
Domestic Hot Water	Heated with Primary heating system & Electric immersion		
Cylinder	Cylinder with manufactured jacket (30mm)		
Controls	7 day Programmer, No thermostat		

Domestic Retrofit Guidelines (Step by Step)			Energy Consumption (kWh/m ² /yr)	Carbon Emissions (CO ₂) (kgCO ₂ /m ² /yr)	Building Energy Rating (BER)	
Energy Efficient Measures			Target U-Value (W/m ² .K)	Current Usage (229.56)	Current Emissions (46.75)	Current BER (D1)
Roof insulation	300mm loftwool to dormer voids and 100mm PIR to dormer slope		0.13 - 0.22	192.05	39.04	C2
External/Internal Wall Insulation	Install 100mm external wall insulation & 100mm PIR to dormer knee walls		0.20 -0.30	144.09	29.18	B3
Window/Door Upgrade	Replace existing glazing with Double glazed,(low E) units		1.4	130.83	26.46	B3
Lighting	Install energy efficient light bulbs (LEDs)		N/A	129.9	26.28	B3
Heating Upgrade (Primary)	Air to water heat pump, >12kW, two separate heating zones and controller.		N/A	79.33	17.48	B1
Renewables	Install 1.2 kWp Solar PV system		N/A	72.05	16.05	A3

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Estimated Costs Summary		
Measures	Estimated Costs (€/m ²)	Estimated Total Costs (€)
Roof Upgrade	15 - 20	€ 4,291
Wall Insulation	90-140	€ 30,446
Window/Door upgrade	250 - 350	€ 16,524
Lighting	20/fitting	€ 880
Heating Upgrade (Primary)	12,500 (System)	€ 12,500
Solar PV	2,400 (1.2 kWp System)	€ 2,400
Total		€ 67,041
Total Cost to Homeowner including One Stop Shop Grant		€ 36,341

Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
A3	157.51	44,126	€ 3,971	9

Audit site visit completed on 10.12.20, Audit report edited on 11.01.21